City of Marlborough Contributory Retirement System

Actuarial Valuation and Review as of
January 1, 2015

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November 20, 2015

Retirement Board
City of Marlborough Contributory Retirement System
140 Main Street, City Hall
Marlborough, MA 01752

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of January 1, 2015. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2016 and later years and analyzes the preceding two years' experience.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement System. The census information and financial information on which our calculations were based was prepared by the staff of the Marlborough Contributory Retirement System. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

An actuarial valuation is a measurement at a specific date – it is not a prediction of a plan's future financial condition. We have not been retained to perform an analysis of the potential range of financial measurements, except where otherwise noted.

The actuarial calculations were directed under the supervision of Kathleen A. Riley, FSA, MAAA, EA. She is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of her knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in her opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By: _____ _____

Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Actuary

William J. Connolly, FCA, MAAA, EA
Consulting Actuary

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SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

REPORTING INFORMATION

Purpose

This report has been prepared by Segal Consulting to present a valuation of the City of Marlborough Contributory Retirement System as of January 1, 2015. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of Massachusetts General Law Chapter 32;
- The characteristics of covered active participants, inactive participants, and retired participants and beneficiaries as of January 1, 2015;
- The assets of the Plan as of December 31, 2014;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Certain disclosure information required by Governmental Accounting Standards Board Statements Numbers 67 and 68 as of December 31, 2014 for the City of Marlborough Contributory Retirement System, a cost-sharing multiple-employer defined benefit pension plan, is provided in a separate report.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

1. The actuarial valuation report as of January 1, 2015 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected.
2. During the plan years ending December 31, 2013 and December 31, 2014, the market value rates of return were 13.27% and 5.92%, respectively. In the prior valuation, we set the actuarial value of assets equal to the market value of assets. This valuation also sets the actuarial value of assets equal to the market value of assets. The market value of assets increased from $119.8 million on December 31, 2012 to $144.7 million on December 31, 2014.

3. The following actuarial assumptions were changed with this valuation:
   - The investment return assumption was lowered from 7.75% to 7.50%.
   - The salary increase assumption was lowered to 3% per year for the next three years and will increase to the long-term assumption of 4.25% for Group 1 and 2 employees and 4.75% for Group 4 employees thereafter.
   - The mortality assumption for non-disabled participants was changed from the RP-2000 Employee and Healthy Annuitant Mortality Tables projected 14 years using Scale AA to the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB from 2009.
   - The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males projected 5 years using Scale AA to the RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males projected generationally using Scale BB from 2009.
   - The administrative expense assumption was increased from $185,000 to $200,000.
   - The retirement age for inactive vested participants was changed from age 65 to age 60 for Group 1 and 2 members.

   Changing these assumptions resulted in a net increase in the unfunded actuarial accrued liability of $9.0 million and a net increase in normal cost of $387,000.
4. The unfunded liability has decreased by $1.0 million from $61.1 million as of January 1, 2013 to $60.1 million as of January 1, 2015. Based on our prior valuation, the expected unfunded liability as of January 1, 2015 was $57.9 million. The increase of $2.2 million from the expected to the actual unfunded liability is primarily due to assumption changes described in item 3 above, offset by an experience gain of $6.8 million (discussed further in Section 2.C).
5. The contribution for fiscal year 2016 is the previously budgeted amount of $7,796,221. The unfunded liability will be paid off by June 30, 2027 in amortization payments that increase by approximately 4.6% per year. The appropriation increases by approximately 4.1% in fiscal 2017 and 2018 and by approximately 4.4% per year thereafter. The fiscal year 2017 appropriation is $8,114,308. The prior funding schedule also fully funded the System by June 30, 2027.

   Chart 15 in Section 2 shows the recommended contributions through fiscal 2027 based on this funding schedule.
6. The funded ratio has increased from 66.22% as of January 1, 2013 to 70.66% as of January 1, 2015.

Important Information About Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the City of Marlborough Contributory Retirement System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** The valuation is based on the market value of assets as of the valuation date, as provided by the City of Marlborough Contributory Retirement System. The City of Marlborough Contributory Retirement System uses an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the City of Marlborough Contributory Retirement System. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If the City of Marlborough Contributory Retirement System is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The City of Marlborough Contributory Retirement System should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Summary of Key Valuation Results

	2015	2013
Contributions for fiscal year beginning July 1:		
Recommended for fiscal 2016 and 2014	$7,796,221	$7,478,815
Recommended for fiscal 2017 and 2015	8,114,308	7,700,000
Recommended for fiscal 2018 and 2016	8,446,002	7,945,580
Funding elements for plan year beginning January 1:		
Normal cost, including administrative expenses	$4,897,521	$4,313,131
Market value of assets	144,721,256	119,783,323
Actuarial value of assets	144,721,256	119,783,323
Actuarial accrued liability	204,799,867	180,896,754
Unfunded actuarial accrued liability	60,078,611	61,113,431
Funded ratio based on market value of assets	70.66%	66.22%
Funded ratio based on actuarial value of assets	70.66%	66.22%
Demographic data for plan year beginning January 1:		
Number of retired participants and beneficiaries	377	357
Number of inactive participants entitled to a return of their employee contributions	175	146
Number of inactive participants with a vested right to a deferred or immediate benefit	20	16
Number of active participants	661	689
Total payroll*	$31,938,731	$30,622,431
Average payroll*	48,319	44,445

** Excludes retroactive payments made in 2012 and 2014.*

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, inactive participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A and B.

A historical perspective of how the participant population has changed over the past four valuations can be seen in this chart.

CHART 1

Participant Population: 2008 – 2014

Year Ended December 31	Active Participants	Inactive Participants	Retired Participants and Beneficiaries	Ratio of Non-Actives to Actives
2008	702	158	349	0.72
2010	682	141	352	0.72
2012	689	162	357	0.75
2014	661	195	377	0.87

Active Participants
Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 661 active participants with an average age of 46.8, average years of service of 12.2 years and average payroll of $48,319. The 689 active participants in the prior valuation had an average age of 46.3, average service of 11.5 years and average payroll of $44,445.

Among the active participants, there were none with unknown age and/or service information.

Inactive Participants
In this year's valuation, there were 20 participants with a vested right to a deferred or immediate vested benefit and 175 participants entitled to a return of their employee contributions.

These graphs show a distribution of active participants by age and by years of service.

CHART 2

Distribution of Active Participants by Age as of December 31, 2014

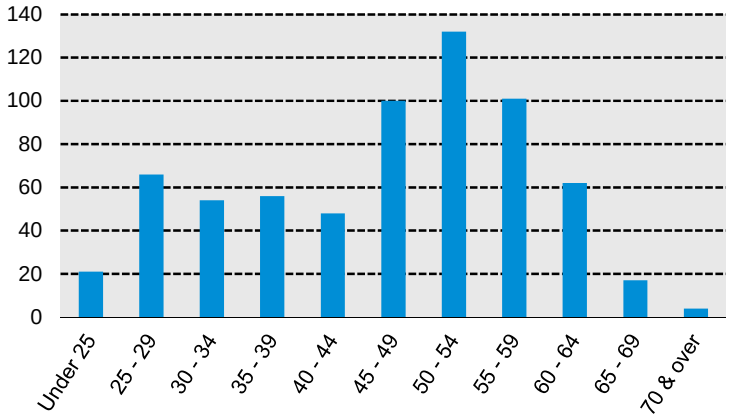
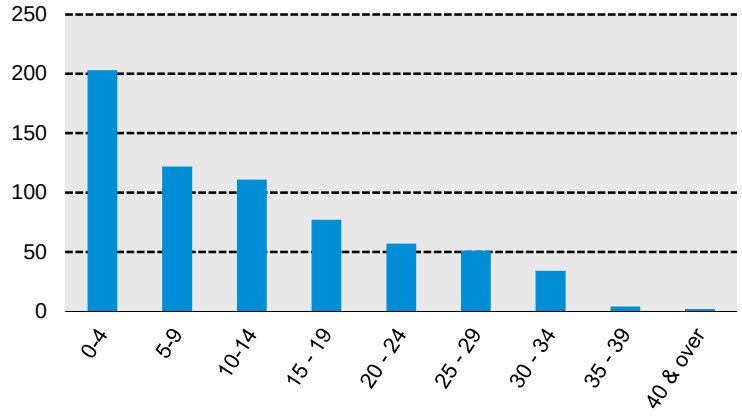


CHART 3

Distribution of Active Participants by Years of Service as of December 31, 2014



Retired Participants and Beneficiaries

As of December 31, 2014, 322 retired participants and 55 beneficiaries were receiving total monthly benefits of $862,087, excluding COLAs reimbursed by the Commonwealth. For comparison, in the previous valuation, there were 300 retired participants and 57 beneficiaries receiving monthly benefits of $774,104, excluding COLAs reimbursed by the Commonwealth.

These graphs show a distribution of the current retired participants and beneficiaries based on their monthly amount and age, by type of pension.

CHART 4

Distribution of Retired Participants and Beneficiaries by Type and by Monthly Amount as of December 31, 2014

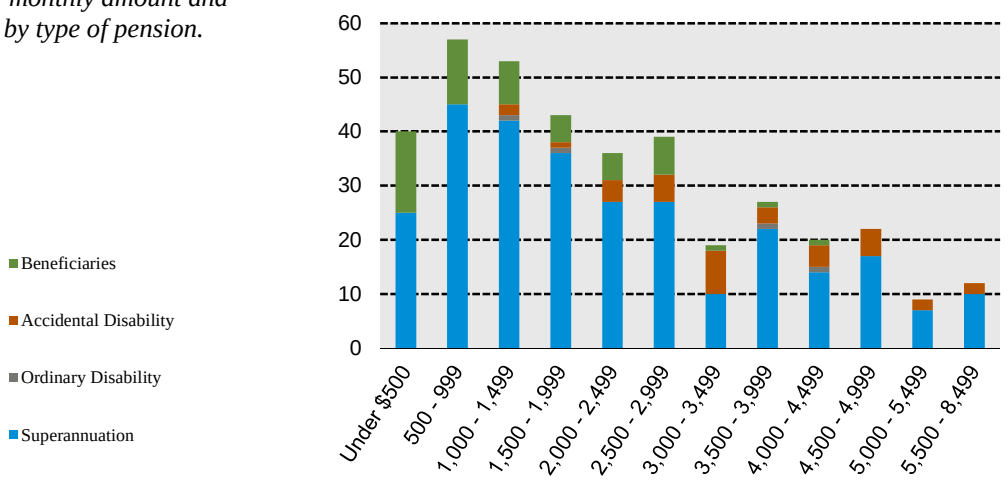
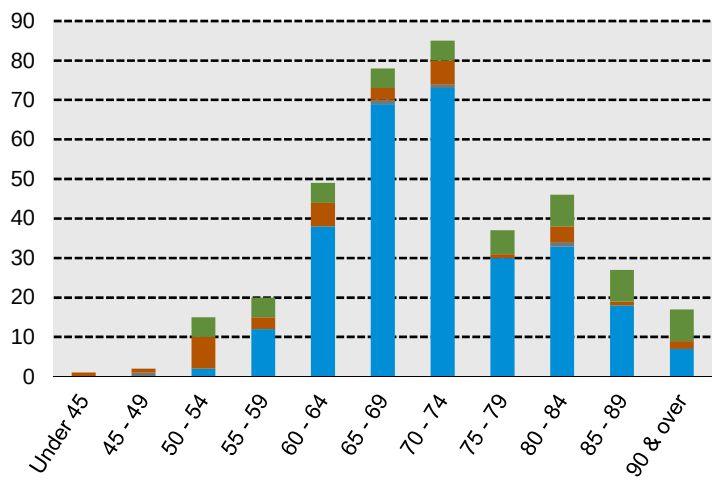


CHART 5

Distribution of Retired Participants and Beneficiaries by Type and by Age as of December 31, 2014



B. FINANCIAL INFORMATION

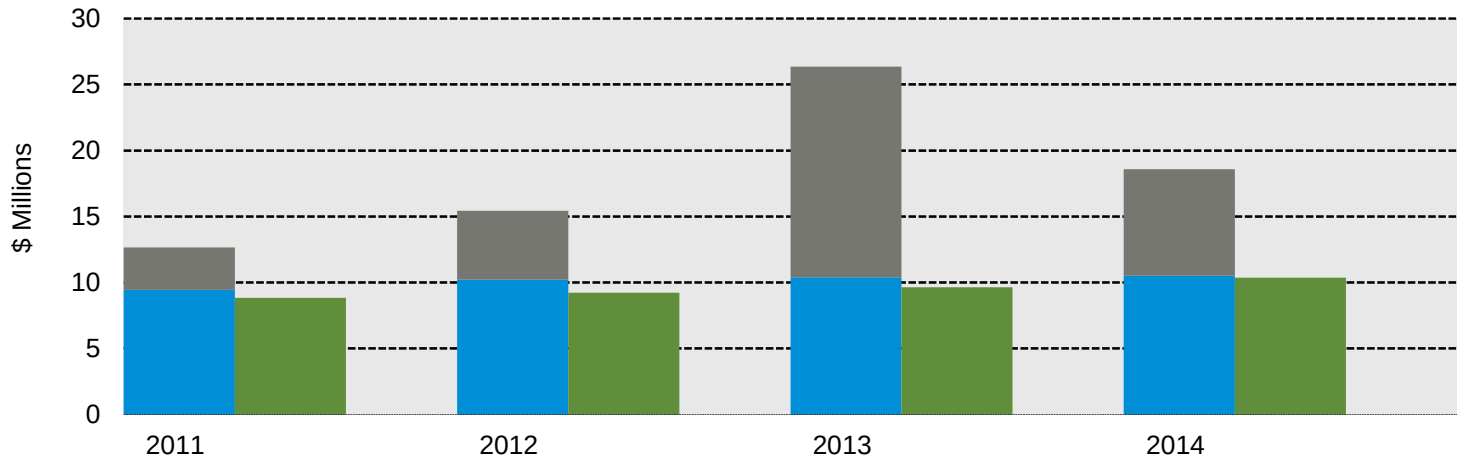
Retirement plan funding anticipates that, over the long term, both contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits C and D.

The chart depicts the components of changes in the actuarial value of assets over the last four years. Note: The first bar represents increases in assets during each year while the second bar details the decreases. The 2012 net investment increases includes the change in asset method.

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 2011 – 2014



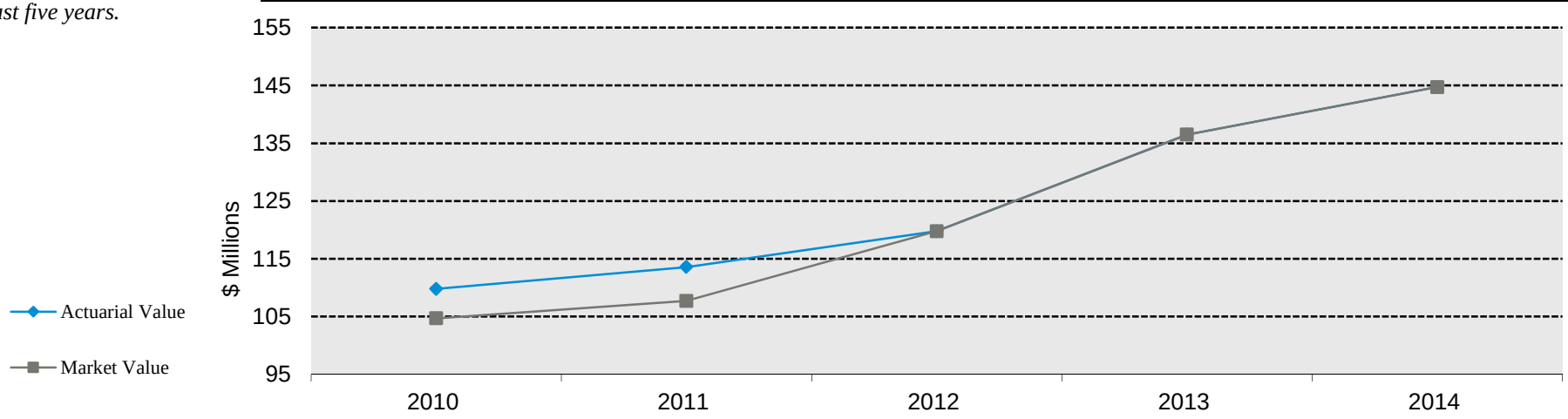
In the prior valuation, we set the actuarial value of assets equal to the market value of assets. This valuation also sets the actuarial value of assets equal to the market value of assets. The Board has the option to adopt an asset " smoothing" method in the future.

The actuarial value of assets is a representation of the City of Marlborough Contributory Retirement System's financial status. The actuarial asset value is significant because the City of Marlborough Contributory Retirement System's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows how the actuarial value and market value of assets have changed over the past five years.

CHART 7

Actuarial Value of Assets vs. Market Value of Assets as of December 31, 2010 – 2014



C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The net experience gain for the two-year period ending December 31, 2014 is $6,797,104. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience over the past two years.

CHART 8

Actuarial Experience for Two-Year Period Ended December 31, 2014

1.	Net gain from investments*	$4,135,704
2.	Net gain from administrative expenses	22,917
3.	Net gain from other experience**	2,638,483
4.	Net experience gain: (1) + (2) + (3)	$6,797,104

* *Details in Chart 9.*

** *Details in Chart 12.*

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the City of Marlborough Contributory Retirement System's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets was 7.75% for 2014 and 2013. The actual rates of return on an actuarial basis for the 2014 and 2013 plan years were 5.92% and 13.27%, respectively.

Since the actual return of $4,135,704 over the two-year period was greater than the assumed return, the City of Marlborough Contributory Retirement System experienced an actuarial gain during the two-year period ending December 31, 2014 with regard to its investments.

This chart shows the gain/(loss) due to investment experience.

CHART 9

Actuarial Value Investment Experience

	Year Ended December 31, 2014	Year Ended December 31, 2013
1. Actual return	$8,083,415	$15,949,172
2. Average value of assets	136,567,913	120,166,067
3. Actual rate of return: (1) ÷ (2)	5.92%	13.27%
4. Assumed rate of return	7.75%	7.75%
5. Expected return: (2) x (4)	$10,584,014	$9,312,869
6. Actuarial gain/(loss): (1) – (5)	-$2,500,599	$6,636,303

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last six years.

Based upon this experience and future expectations, we have decreased the assumed rate of return from 7.75% to 7.50%. We will continue to monitor the Plan's investment return assumption.

CHART 10

Investment Return – Actuarial Value of Assets vs. Market Value of Assets: 2009 - 2014

Year Ended December 31	Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent
2009	- -*	8.68%	- -*	15.95%
2010	- -*	4.05	- -*	11.34
2011	$3,212,014	2.92	$2,426,973	2.31
2012	4,337,038	3.80	11,087,169	10.25
2013	15,949,172	13.27	15,949,172	13.27
2014	8,083,415	5.92	8,083,415	5.92
Total	$31,581,639		$37,546,729	

Notes: Each year's yield is weighted by the average asset value in that year.
The 2012 actuarial value investment return is before the change in asset valuation method.

** Information not available.*

The actuarial and market rates of return for the last six years are shown in Chart 11.

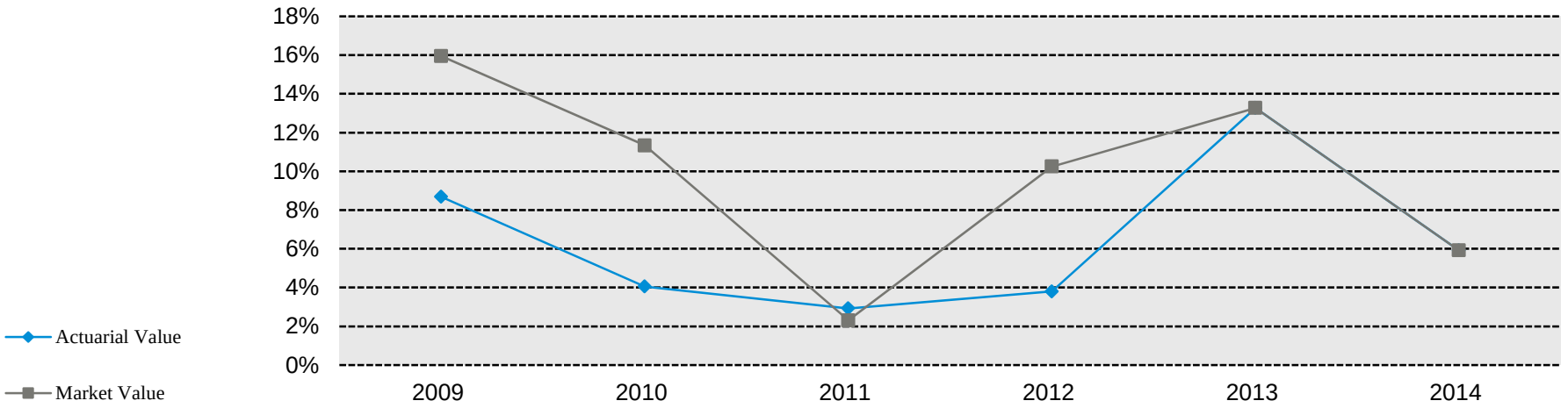
Administrative Expenses

Administrative expenses for the years ended December 31, 2013 and 2014 were $169,335 and $200,423, respectively, compared to the assumption of $185,000 for 2013 and $191,475 for 2014. This resulted in a gain of $22,917 for the two-year period, including an adjustment for interest. Based on budgeted expenses, we have increased the assumption from $185,000 to $200,000 for calendar year 2015.

This chart illustrates the rates of return.

CHART 11

Market and Actuarial Rates of Return for Years Ended December 31, 2009 - 2014



Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the two-year period ending December 31, 2014 amounted to $2,638,483, which is 1.3% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the City of Marlborough Contributory Retirement System for the two-year period ending December 31, 2014 is shown in the chart below.

This valuation reflects the following assumption changes:

- The investment return assumption was lowered from 7.75% to 7.50%.
- The salary increase assumption was lowered to 3% per year for the next three years and will increase to the long-term assumption of 4.25% for Group 1 and 2 employees and 4.75% for Group 4 employees thereafter.
- The mortality assumption for non-disabled participants was changed from the RP-2000 Employee and Healthy Annuitant Mortality Tables projected 14 years using Scale AA to the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB from 2009.
- The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males projected 5 years using Scale AA to the RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males projected generationally using Scale BB from 2009.
- The administrative expense assumption was increased from $185,000 to $200,000.
- The retirement age for inactive vested participants was changed from age 65 to age 60 for Group 1 and 2 members.

Changing these assumptions resulted in a net increase in the unfunded actuarial accrued liability of $9.0 million and a net increase in the employer normal cost of $387,000.

The chart shows elements of the experience gain/(loss) for the most recent years.

CHART 12

Experience Due to Changes in Demographics for Two-Year Period Ended December 31, 2014

1. Fewer deaths than expected among retired members and beneficiaries	-$847,184
2. Salary increase for continuing actives less than expected	4,012,852
3. Miscellaneous loss, including more disability retirements than expected	-527,185
4. Total	$2,638,483

The unfunded liability was expected to decrease from $61.1 million as of January 1, 2013 to $57.9 million as of January 1, 2015. The actual unfunded liability as of January 1, 2015 of $60.1 million is $2.2 million higher than expected as detailed in Chart 13 below.

CHART 13

Development of Unfunded Actuarial Accrued Liability

	Year Ended December 31, 2014		Year Ended December 31, 2013	
1. Unfunded actuarial accrued liability at beginning of year		$59,559,104		$61,113,431
2. Normal cost at beginning of year		4,464,091		4,313,131
3. Total contributions		-10,707,193		-10,567,701
4. Interest				
(a) For whole year on (1) + (2)	$4,961,798		$5,070,558	
(b) For half year on (3)	-375,203		-370,315	
(c) Total interest		4,586,595		4,700,243
5. Expected unfunded actuarial accrued liability		$57,902,597		$59,559,104
6. Changes due to:				
(a) Experience gain	-$6,797,104		- -	
(b) Assumption changes	8,973,118		- -	
(c) Total changes		2,176,014		- -
7. Unfunded actuarial accrued liability at end of year		$60,078,611		$59,559,104

D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. The contribution for fiscal year 2016 is the previously budgeted amount of $7,796,221. The unfunded liability will be paid off by June 30, 2027 in amortization payments that increase by approximately 4.6% per year. The appropriation increases by approximately 4.1% in fiscal 2017 and 2018 and by approximately 4.4% per year thereafter. The fiscal year 2017 appropriation is $8,114,308. The prior funding schedule also fully funded the System by June 30, 2027.

Chart 15 shows the recommended contributions through fiscal 2027 based on this funding schedule.

The chart compares this valuation's recommended contribution with the prior valuation.

CHART 14

Recommended Contribution

	Year Beginning January 1			
	2015		2013	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	$4,697,521	14.12%	$4,128,131	12.97%
2. Administrative expenses	200,000	0.60%	185,000	0.58%
3. Expected employee contributions	-3,132,697	-9.42%	-2,951,097	-9.27%
4. Employer normal cost: (1) + (2) + (3)	$1,764,824	5.31%	$1,362,034	4.28%
5. Actuarial accrued liability	204,799,867		180,896,754	
6. Actuarial value of assets	144,721,256		119,783,323	
7. Unfunded actuarial accrued liability: (5) - (6)	$60,078,611		$61,113,438	
8. Employer normal cost projected to July 1, 2015 and 2013, adjusted for timing	1,782,385	5.31%	1,411,765	4.36%
9. Projected unfunded actuarial accrued liability	62,290,830		63,437,309	
10. Payment on projected unfunded actuarial accrued liability, adjusted for timing	6,013,836	17.90%	6,067,050	18.74%
11. Total recommended contribution: (8) + (10)	$7,796,221	23.21%	$7,478,815	23.10%
12. Projected payroll	$33,588,082		$32,382,363	

Notes: Recommended contributions are assumed to be paid on July 1 for current valuation and in two equal installments on July 1 and December 31 for prior valuation.
Recommended contributions are set equal to the budgeted amounts determined with the prior valuation.
Amortization payments increase by approximately 4.6% per year.

CHART 15

Funding Schedule – Fully Funded by June 30, 2027 with Amortization Payments That Increase by Approximately 4.6% per Year

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization Payment	(4) Total Plan Cost: (2) + (3)	(5) Unfunded Actuarial Accrued Liability at Beginning of Fiscal Year	(6) Percent Increase in Total Cost
2016	$1,782,385	$6,013,836	$7,796,221	$62,290,830	- -
2017	1,825,291	6,289,017	8,114,308	60,497,768	4.08%
2018	1,869,212	6,576,790	8,446,002	58,274,407	4.09%
2019	1,942,321	6,877,730	8,820,051	55,574,939	4.43%
2020	2,018,269	7,192,441	9,210,710	52,349,499	4.43%
2021	2,097,166	7,521,553	9,618,719	48,543,837	4.43%
2022	2,179,127	7,865,724	10,044,851	44,098,956	4.43%
2023	2,264,270	8,225,643	10,489,913	38,950,725	4.43%
2024	2,352,716	8,602,032	10,954,748	33,029,463	4.43%
2025	2,444,595	8,995,644	11,440,238	26,259,488	4.43%
2026	2,540,038	9,407,266	11,947,304	18,558,633	4.43%
2027	2,639,182	9,837,723	12,476,905	9,837,723	4.43%

Notes: Recommended contributions are assumed to be paid on July 1.
Assumes contribution of budgeted amount for fiscal year 2016
Employer normal cost increases at 2% for the first three years and 3.5% thereafter, plus an additional 0.15% adjustment to total normal cost to reflect the effects of mortality improvement due to the generational mortality assumption.

EXHIBIT A

Table of Plan Coverage

Category	Year Ended December 31 2014	2012	Change From Prior Year
Active participants in valuation:			
Number	661	689	-4.1%
Average age	46.8	46.3	N/A
Average years of service	12.2	11.5	N/A
Total payroll*	$31,938,731	$30,622,431	4.3%
Average payroll*	48,319	44,445	8.7%
Member contributions	31,859,134	29,968,210	6.3%
Number of inactive participants entitled to a return of their employee contributions	175	146	19.9%
Number of inactive participants with a vested right to a deferred or immediate benefit	20	16	25.0%
Retired participants:			
Number in pay status	282	264	6.8%
Average age	71.9	72.0	N/A
Average monthly benefit	$2,290	$2,212	3.5%
Disabled participants:			
Number in pay status	40	36	11.1%
Average age	65.8	66.2	N/A
Average monthly benefit	$3,580	$3,228	10.9%
Beneficiaries:			
Number in pay status	55	57	-3.5%
Average age	75.2	73.9	N/A
Average monthly benefit	$1,332	$1,295	2.9%

* *Excludes retroactive payments made in 2012 and 2014.*

EXHIBIT B

Participants in Active Service as of December 31, 2014
By Age, Years of Service, and Average Payroll

	Years of Service									
Age	**Total**	**0-4**	**5-9**	**10-14**	**15 - 19**	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40 & over**
Under 25	21	21	- -	- -	- -	- -	- -	- -	- -	- -
	$24,915	$24,915	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	66	58	8	- -	- -	- -	- -	- -	- -	- -
	$32,237	$31,695	$36,167	- -	- -	- -	- -	- -	- -	- -
30 - 34	54	31	18	5	- -	- -	- -	- -	- -	- -
	$50,797	$48,297	$56,749	$44,873	- -	- -	- -	- -	- -	- -
35 - 39	56	24	11	17	4	- -	- -	- -	- -	- -
	$46,624	$33,714	$51,011	$62,074	$46,357	- -	- -	- -	- -	- -
40 - 44	48	14	9	14	9	2	- -	- -	- -	- -
	$50,649	$29,772	$36,729	$53,414	$83,489	$92,301	- -	- -	- -	- -
45 - 49	100	27	23	14	14	15	6	1	- -	- -
	$50,597	$34,823	$37,032	$45,485	$59,626	$76,990	$84,100	$136,740	- -	- -
50 - 54	132	15	31	24	15	11	24	12	- -	- -
	$54,789	$40,383	$37,866	$36,587	$49,141	$71,778	$86,444	$81,093	- -	- -
55 - 59	101	7	13	23	14	19	12	11	2	- -
	$51,853	$53,757	$40,996	$33,715	$39,299	$54,420	$74,034	$84,595	$74,678	- -
60 - 64	62	4	7	11	19	5	5	8	1	2
	$49,412	$31,257	$36,249	$32,216	$39,314	$57,890	$69,917	$86,370	$57,336	$98,063
65 - 69	17	1	2	3	2	3	4	2	- -	- -
	$42,735	$22,324	$43,493	$27,824	$46,906	$47,530	$44,467	$59,723	- -	- -
70 & over	4	1	- -	- -	- -	2	- -	- -	1	- -
	$45,904	$9,271	- -	- -	- -	$58,405	- -	- -	$57,533	- -
Total	661	203	122	111	77	57	51	34	4	2
	$48,319	$35,289	$41,818	$42,843	$50,645	$65,120	$78,336	$83,847	$66,056	$98,063

EXHIBIT C

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended December 31, 2014		Year Ended December 31, 2013	
Net assets at actuarial value at the beginning of the year		$136,497,984		$119,783,323
Contribution income:				
Employer contributions	$7,700,000		$7,478,815	
Employee contributions	2,994,771		3,075,904	
Other contributions	12,422		12,982	
Less administrative expenses	-200,423		-169,355	
Net contribution income		10,506,770		10,398,346
Net investment income		8,083,415		15,949,173
Total income available for benefits		$18,590,185		$26,347,519
Less benefit payments:				
Pensions	-$9,974,125		-$9,361,135	
Net 3(8)(c) reimbursements	-36,844		-92,074	
Refunds, annuities, & Option B refunds	-355,944		-179,649	
Net benefit payments		-$10,366,913		-$9,632,858
Change in reserve for future benefits		$8,223,272		$16,714,661
Net assets at actuarial value at the end of the year		$144,721,256		$136,497,984

EXHIBIT D

Development of the Fund Through December 31, 2014

Year Ended December 31	Employer Contributions	Employee Contributions	Other Contributions	Net Investment Return	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2011	$7,134,388	$2,482,051	$19,034	$3,212,014	$197,693	$8,848,700	$113,580,877
2012	7,325,058	3,037,719	11,484	5,220,673	162,399	9,230,089	119,783,323
2013	7,478,815	3,075,904	12,982	15,949,173	169,355	9,632,858	136,497,984
2014	7,700,000	2,994,771	12,422	8,083,415	200,423	10,366,913	144,721,256

Notes: Investment return is net of investment fees.
The 2012 net investment return includes the change in asset valuation method.

EXHIBIT E

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or actuarial assumptions: The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Withdrawal rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal cost: The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial accrued liability for actives: The value of all projected benefit payments for current members less the portion that will be paid by future normal costs.

Actuarial accrued liability for pensioners: The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded actuarial accrued liability: The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There are many approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the unfunded actuarial accrued liability:	Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.
Investment return:	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:	
1. Retired participants as of the valuation date (including 55 beneficiaries in pay status)	377
2. Participants active during year ended December 31, 2014 with total accumulated contributions of $31,859,134 and projected payroll as of January 1, 2015 of $33,257,157	661
3. Inactive participants with a right to a return of their employee contributions as of December 31, 2014	175
4. Inactive participants with a vested right to a deferred or immediate benefit as of December 31, 2014	20

The actuarial factors as of January 1, 2015 are as follows:		
1. Normal cost, including administrative expenses		$4,897,521
2. Expected employee contributions		-3,132,697
3. Expected normal cost: (1) + (2)		1,764,824
4. Actuarial accrued liability		204,799,867
Retired participants and beneficiaries	$101,537,729	
Active participants	100,103,079	
Inactive participants	3,159,059	
5. Actuarial value of assets ($144,721,256 at market value as reported in the Annual Statement)		144,721,256
6. Unfunded actuarial accrued liability: (4) – (5)		60,078,611

The actuarial factors projected to July 1, 2015 are as follows:	
1. Employer normal cost projected to July 1, 2015	$1,782,385
2. Projected unfunded actuarial accrued liability	62,290,830
3. Payment on projected unfunded actuarial accrued liability	6,013,836
4. Total recommended contribution: (1) + (3)	$7,796,221
5. Projected payroll as of July 1, 2015	$33,588,082
6. Total budgeted appropriation as a percentage of projected payroll: (4)/(5)	23.21%

Notes: Recommended contribution is assumed to be paid on July 1.
Recommended contribution is set equal to the budgeted amounts determined with the prior valuation.
Amortization payments increase by approximately 4.6% per year.

EXHIBIT II

Funded Ratio

A critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

These measurements are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan’s benefit obligation or the need for or the amount of future contributions.

The chart below depicts a history of the funded ratios for this plan. The funded ratio on both an actuarial and market value basis has increased from 66.22% as of January 1, 2013 to 70.66% as of January 1, 2015.

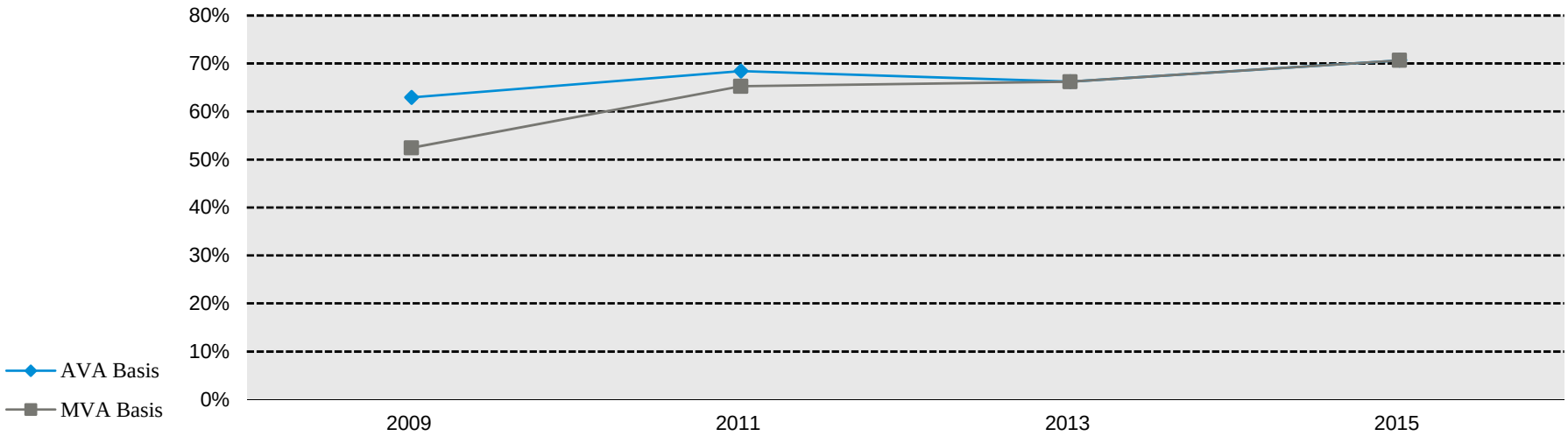


EXHIBIT III

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Pre-Retirement:	RP-2000 Employee Mortality Table projected generationally using Scale BB from 2009 (Previously, RP-2000 Employee Mortality Table projected 14 years using Scale AA).
Healthy Retiree:	RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale BB from 2009 (Previously, RP-2000 Healthy Annuitant Mortality Table projected 14 years using Scale AA).
Disabled Retiree:	RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males projected generationally using Scale BB from 2009 (Previously, RP-2000 Healthy Annuitant Mortality Table projected 5 years using Scale AA, set forward 3 years for males).
	The underlying tables with generational projection to the ages of participants as of the measurement date reasonably reflect the mortality experience of the Plan as of the measurement date based on historical and current demographic data. As part of the analysis, a comparison was made between the actual number of retiree deaths and the projected number based on the prior years' assumption over the most recent four years. These mortality tables were then adjusted to future years using generational projection under Scale BB to reflect future mortality improvement between the measurement date and those years.

Termination Rates before Retirement:

Group 1 - Rate (%)

	Mortality				
	Male		Female		
Age	Current	Previous	Current	Previous	Disability
20	0.03	0.02	0.02	0.01	0.01
25	0.04	0.03	0.02	0.02	0.02
30	0.04	0.04	0.03	0.02	0.03
35	0.08	0.07	0.05	0.04	0.06
40	0.11	0.09	0.07	0.05	0.10
45	0.15	0.12	0.11	0.08	0.15
50	0.21	0.15	0.17	0.12	0.19
55	0.30	0.21	0.25	0.22	0.24
60	0.49	0.35	0.39	0.36	0.28

Notes: Mortality rates do not reflect generational projection.
55% of the disability rates shown represent accidental disability.
40% of the accidental disabilities will die from the same cause as the disability.
55% of the death rates shown represent accidental death.

	Group 4 - Rate (%)				
	Mortality				
	Male		Female		
Age	Current	Previous	Current	Previous	Disability
20	0.03	0.02	0.02	0.01	0.10
25	0.04	0.03	0.02	0.02	0.20
30	0.04	0.04	0.03	0.02	0.30
35	0.08	0.07	0.05	0.04	0.30
40	0.11	0.09	0.07	0.05	0.30
45	0.15	0.12	0.11	0.08	1.00
50	0.21	0.15	0.17	0.12	1.25
55	0.30	0.21	0.25	0.22	1.20
60	0.49	0.35	0.39	0.36	0.85

Notes: Mortality rates do not reflect generational projection.
90% of the disability rates shown represent accidental disability.
60% of the accidental disabilities will die from the same cause as the disability.
90% of the death rates shown represent accidental death.

Withdrawal Rates:

Years of Service	Rate per year (%) Group 1	Group 4
0	15.0	1.5
1	12.0	1.5
2	10.0	1.5
3	9.0	1.5
4	8.0	1.5
5	7.6	1.5
6	7.5	1.5
7	6.7	1.5
8	6.3	1.5
9	5.9	1.5
10	5.4	1.5
11	5.0	0.0
12	4.6	0.0
13	4.1	0.0
14	3.7	0.0
15	3.3	0.0
16 – 20	2.0	0.0
21 – 29	1.0	0.0
30+	0.0	0.0

The termination rates and disability rates were based on historical and current demographic data, adjusted to reflect economic conditions of the area and estimated future experience and professional judgment. As part of the analysis, a comparison was made between the actual number of terminations and disability retirements and the projected number based on the prior years' assumption over the most recent four years.

Retirement Rates:

	Rate per year (%)			
	Group 1		Group 4	
Age	Male	Female	Age	Male and Female
50	1.0	1.5	45	1.0
51	1.0	1.5	46	1.0
52	1.0	2.0	47	1.0
53	1.0	2.5	48	1.0
54	2.0	2.5	49	1.0
55	2.0	5.5	50	2.0
56	2.5	6.5	51	2.0
57	2.5	6.5	52	2.0
58	5.0	6.5	53	5.0
59	6.5	6.5	54	7.5
60	12.0	5.0	55	15.0
61	20.0	13.0	56	10.0
62	30.0	15.0	57	10.0
63	25.0	12.5	58	10.0
64	22.0	18.0	59	15.0
65	40.0	15.0	60	20.0
66	25.0	20.0	61	20.0
67	25.0	20.0	62	25.0
68	30.0	25.0	63	25.0
69	30.0	20.0	64	30.0
70	100.0	100.0	65	100.0

The retirement rates were based on historical and current demographic data, adjusted to reflect economic conditions of the area and estimated future experience and professional judgment. As part of the analysis, a comparison was made between the actual number of retirements by age and the projected number based on the prior years' assumption over the most recent four years.

Retirement Age for Inactive Vested Participants:	Age 60 for Group 1 and 2 members and age 55 for Group 4 members. (Previously, age 65 for Group 1 and 2 and age 55 for Group 4). The retirement age for inactive vested participants was based on historical and current demographic data, adjusted to reflect economic conditions of the area and estimated future experience and professional judgment.
Unknown Data for Participants:	Same as those exhibited by participants with similar known characteristics.
Family Composition:	80% of participants are assumed to be married. None are assumed to have dependent children. Females are assumed to be three years younger than their spouses.
Benefit Election:	All participants are assumed to elect Option A. The benefit election reflects the fact that all benefit options are actuarially equivalent.
Net Investment Return:	7.50% (Previously, 7.75%). The net investment return assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes, as well as the Plan's target asset allocation.
Salary Increases:	3% per year for the next three years then 4.25% for Group 1 and 2 employees and 4.75% for Group 4 employees thereafter. (Previously, 4.25% for Group 1 employees and 4.75% for Group 4 employees). The salary scale assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment.
Interest on Employee Contributions:	3.50%
Administrative Expenses:	$200,000 for calendar 2015, increasing 2.0% annually for three years and 3.5% per year thereafter. (Previously, $185,000 for calendar 2013, increasing 3.50% per year). The administrative expense assumption is based on information on expenses provided by the Retirement System.

2014 Salary:	2014 salary equal to salaries provided in the data adjusted from 53 to 52 pay periods for non-school employees. The 2014 salary also excludes retroactive payments made in 2014, based on information provided by the Retirement Board's Director.
Total Service:	Total creditable service reported in the data.
Net 3(8)c Liability:	No liability is valued for benefits paid to or received from other municipal systems.
Actuarial Value of Assets:	Market value of assets as reported in the System's Annual Statement.
Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method. Entry Age is the age of the participant less Total Service as defined above. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary. Normal Cost is determined using the plan of benefits applicable to each participant.
Changes in Assumptions:	This valuation reflects the following changes in assumptions: ➢ The investment return assumption was lowered from 7.75% to 7.50%. ➢ The salary increase assumption was lowered to 3% per year for the next three years and will increase to the long-term assumption of 4.25% for Group 1 and 2 employees and 4.75% for Group 4 employees thereafter. ➢ The mortality assumption for non-disabled participants was changed from the RP-2000 Employee and Healthy Annuitant Mortality Tables projected 14 years using Scale AA to the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB from 2009. ➢ The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males projected 5 years using Scale AA to the RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males projected generationally using Scale BB from 2009. ➢ The administrative expense assumption was increased from $185,000 to $200,000. ➢ The retirement age for inactive vested participants was changed from age 65 to age 60 for Group 1 and 2 members.

EXHIBIT IV

Summary of Plan Provisions

This exhibit summarizes the major provisions of Chapter 32 of the Laws of Massachusetts.

Plan Year: January 1 – December 31

Retirement Benefits

Employees covered by the Contributory Retirement Law are classified into one of four groups depending on job classification. Group 1 comprises most positions in state and local government. It is the general category of public employees. Group 4 comprises mainly police and firefighters. Group 2 is for other specified hazardous occupations. (Officers and inspectors of the State Police are classified as Group 3.)

For employees hired prior to April 2, 2012, the annual amount of the retirement allowance is based on the member's final three-year average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the following table based on the age of the member at retirement:

	Age Last Birthday at Date of Retirement		
Percent	**Group 1**	**Group 2**	**Group 4**
2.5	65 or over	60 or over	55 or over
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59	--	49
1.8	58	--	48
1.7	57	--	47
1.6	56	--	46
1.5	55	--	45

A member's final three-year average salary is defined as the greater of the highest consecutive three-year average annual rate of regular compensation and the average annual rate of regular compensation received during the last three years of creditable service prior to retirement.

For employees hired on April 2, 2012 or later, the annual amount of the retirement allowance is based on the member's final five-year average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the following tables based on the age and years of creditable service of the member at retirement:

For members with less than 30 years of creditable service:

	Age Last Birthday at Date of Retirement		
Percent	**Group 1**	**Group 2**	**Group 4**
2.50	67 or over	62 or over	57 or over
2.35	66	61	56
2.20	65	60	55
2.05	64	59	54
1.90	63	58	53
1.75	62	57	52
1.60	61	56	51
1.45	60	55	50

For members with 30 years of creditable service or greater:

	Age Last Birthday at Date of Retirement		
Percent	**Group 1**	**Group 2**	**Group 4**
2.500	67 or over	62 or over	57 or over
2.375	66	61	56
2.250	65	60	55
2.125	64	59	54
2.000	63	58	53
1.875	62	57	52
1.750	61	56	51
1.625	60	55	50

A member's final five-year average salary is defined as the greater of the highest consecutive five-year average annual rate of regular compensation and the average annual rate of regular compensation received during the last five years of creditable service prior to retirement.

For employees who became members after January 1, 2011, regular compensation is limited to 64% of the federal limit found in 26 U.S.C. 401(a)(17). In addition, regular compensation for members who retire after April 2, 2012 will be limited to prohibit "spiking" of a member's salary to increase the retirement benefit.

For all employees, the maximum annual amount of the retirement allowance is 80 percent of the member's final average salary. Any member who is a veteran also receives an additional yearly retirement allowance of $15 per year of creditable service, not exceeding $300. The veteran allowance is paid in addition to the 80 percent maximum.

Employee Contributions

Date of Hire	Contribution Rate
Prior to January 1, 1975	5%
January 1, 1975 – December 31, 1983	7%
January 1, 1984 – June 30, 1996	8%
July 1, 1996 onward	9%

In addition, employees hired after December 31, 1978 contribute an additional 2 percent of salary in excess of $30,000.

Employees hired after 1983 who voluntarily withdraw their contributions with less than 10 ten years of credited service receive 3% interest on their contributions.

Employees in Group 1 hired on or after April 2, 2012 with 30 years of creditable service or greater will pay a base contribution rate of 6%.

Retirement Benefits (Superannuation)

Members of Group 1, 2 or 4 hired prior to April 2, 2012 may retire upon the attainment of age 55. For retirement at ages below 55, twenty years of creditable service is required.

	Members hired prior to April 2, 2012 who terminate before age 55 with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the System). Members of Group 1 hired April 2, 2012 or later may retire upon the attainment of age 60. Members of Group 2 or 4 hired April 2, 2012 or later may retire upon the attainment of age 55. Members of Group 4 may retire upon attainment of age 50 with ten years of creditable service. Members hired April 2, 2012 or later who terminate before age 55 (60 for members of Group 1) with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (60 for members of Group 1) provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the System.
Ordinary Disability Benefits	
	A member who is unable to perform his or her job due to a non-occupational disability will receive a retirement allowance if he or she has ten or more years of creditable service and has not reached age 55. The annual amount of such allowance shall be determined as if the member retired for superannuation at age 55 (age 60 for Group 1 members hired on or after April 2, 2012), based on the amount of creditable service at the date of disability. For veterans, there is a minimum benefit of 50 percent of the member's most recent year's pay plus an annuity based on his or her own contributions.
Accidental Disability Benefit	
	For a job-connected disability, the benefit is 72 percent of the member's most recent annual pay plus an annuity based on his or her own contributions, plus additional amounts for surviving children. Benefits are capped at 75 percent of annual rate of regular compensation for employees who become members after January 1, 1988.

Death Benefits

In general, the beneficiary of an employee who dies in active service will receive a refund of the employee's own contributions. Alternatively, if the employee were eligible to retire on the date of death, a spouse's benefit will be paid equal to the amount the employee would have received under Option C. The surviving spouse of a member who dies with two or more years of credited service has the option of a refund of the employee's contributions or a monthly benefit regardless of eligibility to retire, if they were married for at least one year. There is also a minimum widow's pension of $250 per month, and there are additional amounts for surviving children.

If an employee's death is job-connected, the spouse will receive 72 percent of the member's most recent annual pay, in addition to a refund of the member's accumulated deductions, plus additional amounts for surviving children. However, in accordance with Section 100 of Chapter 32, the surviving spouse of a police officer, firefighter or corrections officer is killed in the line of duty will be eligible to receive an annual benefit equal to the maximum salary held be the member at the time of death.

Upon the death of a job-connected disability retiree who retired prior to November 7, 1996 and could not elect an Option C benefit, a surviving spouse will receive an allowance of $9,000 per year if the member dies for a reason unrelated to the cause of the disability.

"Heart And Lung Law" And Cancer Presumption

Any case of hypertension or heart disease resulting in total or partial disability or death to a uniformed fireman, permanent member of a police department, or certain employees of a county correctional facility is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. Any case of disease of the lungs or respiratory tract resulting in total disability or death to a uniformed fireman is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. There is an additional presumption for uniformed firemen that certain types of cancer are job-related if onset occurs while actively employed or within five years of retirement.

Options	Members may elect to receive a full retirement allowance payable for life under Option A. Under Option B a member may elect to receive a lower monthly allowance in exchange for a guarantee that at the time of death any contributions not expended for annuity payments will be refunded to the beneficiary. Option C allows the member to take a lesser retirement allowance in exchange for providing a survivor with two-thirds of the lesser amount. Option C pensioners will have benefits converted from a reduced to a full retirement if the beneficiary predeceases the retiree.
Post-Retirement Benefits	The Board has adopted the provisions of Section 51 of Chapter 127 of the Acts of 1999, which provide that the Retirement Board may approve an annual COLA in excess of the Consumer Price Index but not to exceed a 3% COLA on the first $12,000 of a retirement allowance. Cost-of-living increases granted prior to July 1, 1998 are reimbursed by the Commonwealth and not reflected in this report.
Changes in Plan Provisions	None.